

博士论坛

区际救援物资中转调度的多目标优化问题研究

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摘要 针对大规模、远距离和多品种的区际救援物资联动调运问题, 以区际救援物资送达受灾城市总时间最短和总成本最小为目标, 建立了一个区际救援物资中转调度的多目标优化模型, 并设计了一种多目标协进化遗传算法。算例分析验证了该算法能够较好地获取问题的Pareto最优解。

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Multi-objective optimization problem in transshipment scheduling of inter-regional relief materials

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Abstract

Based on the scheduling problem of large-scale, long distance and varieties relief materials in inter-regional joint allocation and transportation, a multi-objective optimization model for transshipment scheduling is developed to minimize the total travel time and transportation costs. And a multi-objective co-evolutionary genetic algorithm is also proposed to solve the model. Finally, the validity of the model and algorithm is demonstrated by a numerical example, and the results show that many Pareto optimal solutions can be effectively obtained.

Key words [relief materials](#) [transshipment node](#) [scheduling optimization](#) [multi-objective genetic algorithm](#)

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